



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

M-1

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,463	10/07/2005	Agostino Di Trapani	Q85687	5533
23373	7590	08/08/2007	EXAMINER	
SUGHRUE MION, PLLC			FONSECA, JESSIE T	
2100 PENNSYLVANIA AVENUE, N.W.			ART UNIT	PAPER NUMBER
SUITE 800			3637	
WASHINGTON, DC 20037.				
MAIL DATE		DELIVERY MODE		
08/08/2007		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/520,463	DI TRAPANI, AGOSTINO
	Examiner Jessie Fonseca	Art Unit 3637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 17 May 2007.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 38-55 is/are pending in the application.
  - 4a) Of the above claim(s) 46 and 48-53 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 38-45, 47, 54 and 55 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant notes claims 38-45, 50, 51, and 54 are readable on the elected species (fig. 1). Upon examination of the claims, it is noted that claims 47 and 55 read on the elected invention and therefore has been examined. Furthermore, claims 50-51 read on non-elected species IV, fig. 7 (having a rounded half-shank on at least one lateral face). Accordingly, claims 46 and 48-53 have been withdrawn.

### ***Drawings***

The drawings were received on 5/17/07. These drawings are acceptable.

### ***Claim Objections***

Claim 54 is objected to because of the following informalities:

Line 3 of the claim: A comma should be present between "wall" and "the construction elements". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 38-45, 47, and 54-55 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 38 recites the limitation "alignment" in line 14 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 38 recites the limitation "height" in line 14 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 38 recites the limitation "plumb alignment" in line 14 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 38 recites the limitation "assembled elements" in lines 14-15 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claims 41-43 are rendered indefinite, as it isn't readily apparent what exactly constitutes "A construction element." The claim format is improper, as the scope of invention claimed is not clear.

Claim 45 recites the limitation "the thickness" in lines 14-15 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 54 recites the limitation "said dimension", it's unclear if the applicant is referring to height, length or width dimension.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 38-45, 47, and 55 rejected under 35 U.S.C. 103(a) as being unpatentable over Khamis (US 6,050,749) and in view of Breaky (US 2,162,417), or Stewart, Jr. (US 3,422,588).

With regards to claim 38 and 41: Khamis discloses a wall (fig. 2 and 6) constructed from a plurality of construction elements (12) made of concrete like material (col. 3, lines 41-46), each construction element (12) comprising an upper face (B), a lower face (C), and lateral faces (fig. 3), the construction element (12) comprising at least one groove (46) extending over the upper face (B) thereof, the groove (46) being associated with a load-bearing wall or partition (A) of the construction element (12) and arranged at a distance from an outer lateral edge of the construction element (12), the construction element (12) further comprising at least one protuberance (44), which extends over the lower face (C) thereof, the protuberance (44) being arranged in such a way that when a first construction element (12) of the plurality is superimposed on a second construction element (12) of said plurality within said wall, the protuberance (44) of the first construction element (12) extends in the groove of the second construction element (12) (fig. 6).

Khamis discloses everything previously mentioned, except for the construction elements (12) being assembled to one another within the wall by means of a binder, the binder being applied in the groove in such a way that a strip of the binder is formed between the upper face and the lower face of the construction elements, the strip forming the sole contact between the two superimposed elements, thereby enabling an adjustment of the alignment, of the height, and of the plumb alignment of the assembled elements.

However, Breaky discloses a binder (19) for placement between construction elements (10), including grooves for properly securing the construction elements to one another (fig. 3). Alternatively, Stewart, Jr. disclose a binder (10) for placement between construction elements, including grooves, for properly securing the construction elements (1) to one another (fig. 2). Therefore, it would have obvious one of ordinary skill in the art at the time of the invention was made to modify the wall of Khamis to include a binder between the construction elements as taught by Breaky or Stewart, Jr. so as to provide wall with increase structural integrity and stability.

It is noted that the binder being placed in the groove in such a way that strip of the binder is formed between the upper face and lower face of the construction elements is a matter of user preference, as the amount of binder and where it is placed between constructions elements is dependent upon the worker constructing the wall. Furthermore, the adjustment of the alignment, of the height, and the plumb alignment is obviously dependent on the weight of the construction element and how it is seated on a subsequent construction element during construction.

With regards to claim 39 and 42: Khamis, in view of Breaky or Stewart Jr., further discloses the protuberance (44) and the groove (46) have a cross-section, which is approximately trapezoidal in shape (fig. 3), in such a way that, a protuberance lateral flank of the first construction element (12) extends approximately parallel to a groove lateral flank of the second construction element (12) (fig. 3 and 6), and a small base of the trapezoid of the protuberance (44) being arranged opposite a small base of the trapezoid of the groove (46) when they are engaged (fig. 3 and 18). As per the modification of claim 37, the lateral flanks are arranged in such a fashion as to have first space between them, in which a binder is disposed within, the small bases being arranged in such a way where binder is disposed in the second space as created by the grooves.

With regards to claim 40 and 43: The ratio of the weight of the construction element (12) to the surface area of the small base of the trapezoidal of protuberance (44) will inherently be inversely proportional to the fluidity of the binder.

With regards to claim 44: Khamis, in view of Breaky or Stewart Jr., further discloses the depth of the groove (46) and a height of protuberance (44) are approximately equal and proportional to a tolerance which is to be accommodated with each construction element (12) (fig. 2 and 6)

With regards to claim 45: Khamis, in view of Breaky or Stewart Jr., further discloses the width of the groove (46) of the construction element (12) is less than the thickness of the load-bearing wall or partition (A) of the construction element (12) (fig. 3).

With regards to claim 47: Khamis, in view of Breaky or Stewart Jr., further discloses the construction element (12) has a plurality of load-bearing walls or partitions, and wherein the groove (46) is arranged above each of the load-bearing walls or partitions (A) of said plurality (fig. 2 and 6).

With regards to claim 55: Khamis, in view of Breaky or Stewart Jr., further discloses a plurality of construction elements (12), where the wall extends a thin join between construction elements (12) (fig. 6 and col. 7, lines 29-34).

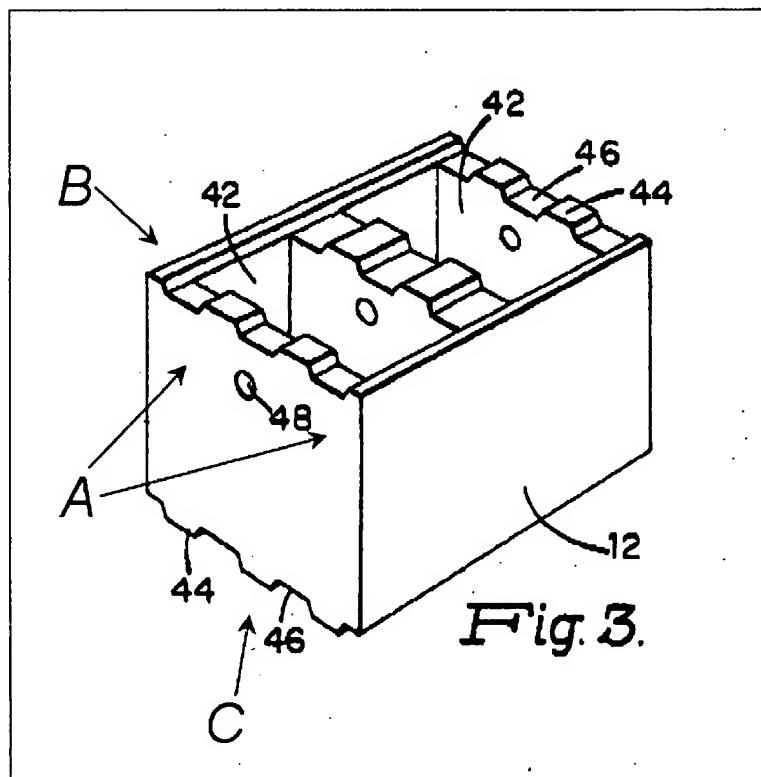


Fig. 3: Khamis (US 6,050,749)

Claim 54 rejected under 35 U.S.C. 103(a) as being unpatentable over Khamis (US 6,050,749) and in view of Breaky (US 2,162,417), or Stewart, Jr. (US 3,422,588), and in further view of Huberty (US 2002/0038532 A1) and Dial, Jr. (US 6,223,491)

With regards to claim 54: Khamis, in view of Breaky or Stewart Jr., further discloses each construction element (12) has a predetermined height, length and width dimension, and the height being greater than or equal to the length . Khamis, in view of Breaky or Stewart Jr., fails to disclose the construction elements having a weight which is less than or equal to 25 kg. However, Huberty discloses a construction element (5) having a weight of 4 kg and 8.5kg, which is less than 25 kg (par. 0079). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the construction element of Khamis, in view of Breaky or Stewart Jr., to have weight less than 25 kg as taught by Huberty in order to provide a construction element is light weight for ease of transport and handling.

Khamis, in view of Breaky or Stewart Jr., and in further view of Huberty, fails to the dimension being such that within wall, the construction elements fit within interior lintels and stretches of masonry beneath ceilings. However, it is widely known in that art the lintels are typically found walls, particularly above portals, such as windows or doorways, so as to provide structural support to the wall. Dial, Jr. discloses a wall having construction elements (31) that fit within a lintel (55) and stretches of masonry (fig. 5). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the wall of Khamis, in view of Breaky or

Stewart Jr., and and in further view of Huberty, to have the dimension of construction elements being such that within the wall, the construction elements fit within interior lintels and stretches of masonry beneath ceilings as taught by Dial, Jr., which would provide a construction block that is dimensioned for ease of transport, handling, and construction.

### ***Response to Arguments***

Applicant's arguments with respect to claims 20-24, 26-29, 35, and 36 have been considered but are moot in view of the new ground(s) of rejection.

Nonetheless, in response to the applicant's arguments that a pattern assembly of Komasara et al. is not a construction element, the examiner disagrees. Any item used in construction is considered a "construction element."

Applicant further argues no binder was presented in the applied art of the previous Office Action. As stated in the previous Office Action, the binder was related to an intended use, as the claims were directed to a construction element. However, any construction element may incorporate the use of binder, so as to provide increased securement and structural integrity of the wall. Applicant is directed to rejection above.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon

hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Furthermore, the binder being placed in the groove in such a way that strip of the binder is formed between the upper face and lower face of the construction elements is a matter of user preference, as the amount of binder placed between construction elements is dependent on the worker constructing the wall.

In response to the applicant's arguments that hindsight was used in rejection regarding the tolerance being proportional to the depth of the mortise and height of the tenon. The examiner disagrees, as it was clearly stated that this was an "inherent" feature of the construction element.

Applicant further argues faces A and B of Roberts are lateral faces and not the lower and upper face. The Examiner disagrees, as it was clearly annotated what was considered the lower and upper face. Applicant's arguments are conjecture, as the block can easily be rotated to have the upper face extend vertically.

In response to the applicant's arguments that the examiner contradicts himself when stating the mortise (4) extends on the upper face (B) and is associated the load bearing wall (G). The examiner disagrees, as reference character G is clearly directed to the load-bearing wall and not the upper face as asserted by the applicant.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

The rejection of claims 22-24, 26, 35, and 36 under 35 U.S.C. 112, second paragraph, are moot in view of the amendment filed 5/17/07.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessie Fonseca whose telephone number is (571)272-7195. The examiner can normally be reached on M-F 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lanna Mai can be reached on (571)272-6867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JF JF  
8/2/07

LANNA MAI  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600

